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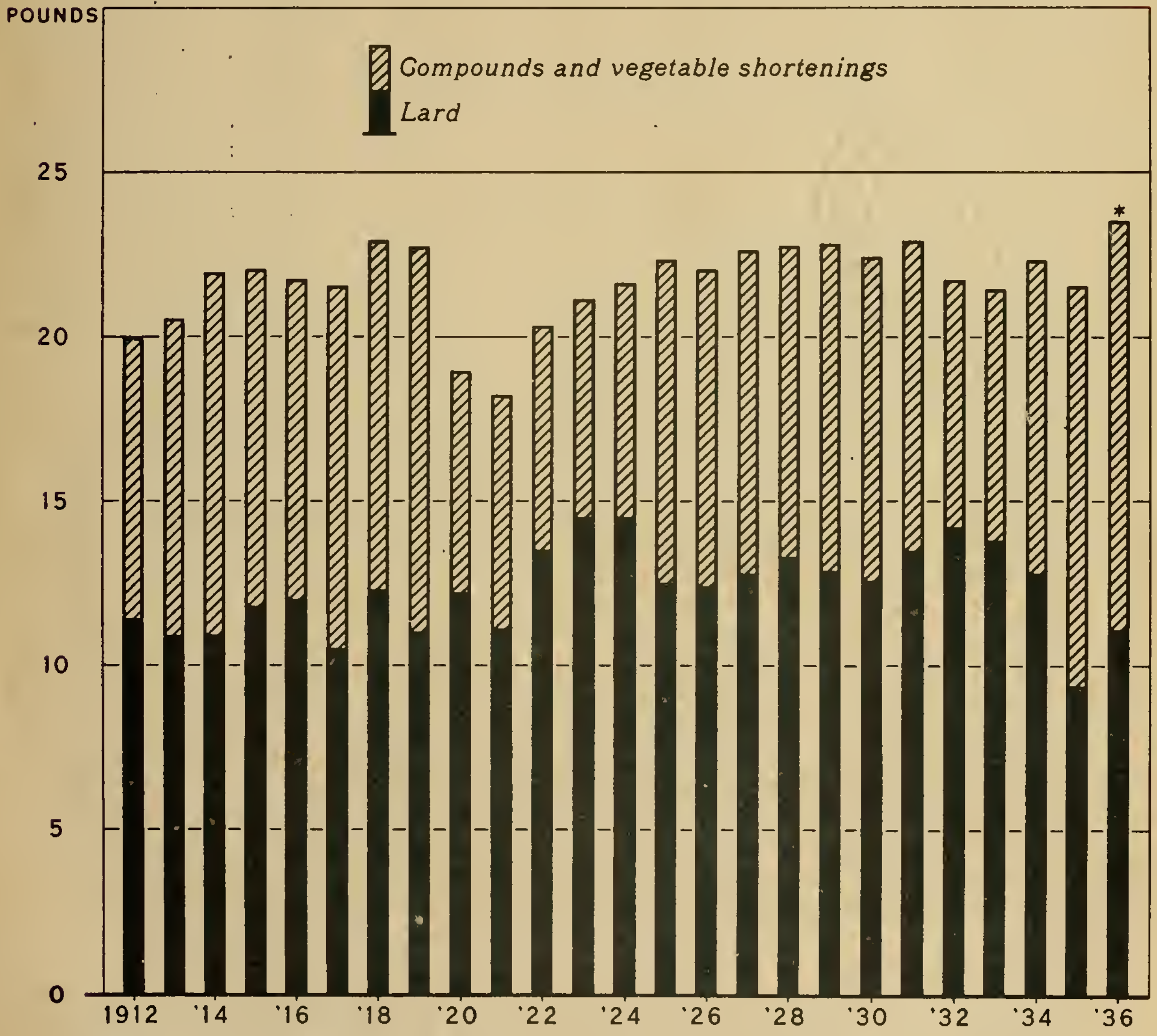
THE FATS AND OILS SITUATION

PER CAPITA DISAPPEARANCE OF COMPOUNDS AND VEGETABLE SHORTENINGS, AND LARD, 1912-36



APPARENT DISAPPEARANCE COMPUTED FROM FACTORY PRODUCTION PLUS OR MINUS NET TRADE AND CORRECTED FOR CHANGES IN STOCKS WHERE AVAILABLE. PER CAPITA BASED ON JULY 1 POPULATION
** PRELIMINARY*

U. S. DEPARTMENT OF AGRICULTURE NEG. 32991 BUREAU OF AGRICULTURAL ECONOMICS

Table 1 .-Apparent disappearance per capita of butter, oleomargarine, lard, compounds and vegetable shortenings, and exports of lard per capita, United States, 1912-36

Calendar year	Butter	Oleomargarine	Total butter and oleomargarine	Lard	Compounds and vegetable shortenings	Total lard and compounds	Grand total	Lard exports 1/
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
1912	16.7	1.5	18.2	11.4	8.5	19.9	38.1	5.8
1913	16.6	1.6	18.2	10.9	9.6	20.5	38.7	6.0
1914	17.2	1.4	18.6	10.9	11.0	21.9	40.5	4.7
1915	17.4	1.4	18.8	11.8	10.2	22.0	40.8	4.9
1916	17.5	1.8	19.3	12.0	9.7	21.7	41.0	4.6
1917	16.0	2.8	18.8	10.5	11.0	21.5	40.3	3.8
1918	13.9	3.3	17.2	12.3	10.6	22.9	40.1	5.4
1919	15.3	3.4	18.7	11.0	11.7	22.7	41.4	7.5
1920	14.8	3.4	18.2	12.2	6.7	18.9	37.1	6.0
1921	16.2	2.0	18.2	11.1	7.1	18.2	36.4	8.3
1922	17.1	1.7	18.8	13.5	6.8	20.3	39.1	7.3
1923	17.9	2.0	19.9	14.5	6.6	21.1	41.0	9.6
1924	18.1	2.0	20.1	14.5	7.1	21.6	41.7	8.7
1925	17.7	2.0	19.7	12.5	9.8	22.3	42.0	6.3
1926	17.5	2.1	19.6	12.4	9.6	22.0	41.6	6.3
1927	17.5	2.3	19.8	12.8	9.8	22.6	42.4	6.1
1928	17.2	2.6	19.8	13.3	9.4	22.7	42.5	6.7
1929	17.4	2.9	20.3	12.9	9.9	22.8	43.1	7.1
1930	17.3	2.6	19.9	12.6	9.8	22.4	42.3	5.5
1931	18.0	1.9	19.9	13.5	9.4	22.9	42.8	4.8
1932	18.1	1.6	19.7	14.2	7.5	21.7	41.4	4.6
1933	17.6	1.9	19.5	13.8	7.6	21.4	40.9	4.9
1934	18.0	2.1	20.1	12.8	9.5	22.3	42.4	3.6
1935	17.1	3.0	20.1	9.4	12.1	21.5	41.6	0.9
1936 2/	16.5	3.0	19.5	11.1	12.4	23.5	43.0	1.1

1/ Net exports and shipments to non-contiguous territory.

2/ Preliminary.

Apparent disappearance is computed from production plus or minus net trade and corrected for changes in stocks where available. Per capita based on July 1 population.

It should be noted that these data are only rough approximations. The available statistical information, especially on animal fats, is incomplete. Total slaughter of meat animals in federally inspected establishments represents actual count, but data for other slaughter are rather rough estimates by the Bureau of Agricultural Economics. Butter production for census years 1912-29 are data as reported by Bureau of the Census. For intercensus years interpolations are made on the basis of market receipts and production reported to the Bureau of Agricultural Economics. Beginning 1930, from reports of the Bureau of Agricultural Economics.

THE FATS AND OILS SITUATION

This issue of the Fats and Oils Situation presents some recent developments in the vegetable shortening industry together with a few tables showing statistical background. See pages 7-21.

Prices of most fats and oils averaged slightly lower in December 1937 than in November and were markedly lower than prices in December of the previous year. Exceptions are butter, oleomargarine, vegetable shortenings, and fish oils, the prices of which were equal to or slightly higher than they were in November. Butter, 92 score, at New York averaged 4.7 cents per pound higher than in December 1936. The prices of cottonseed oil, lard, coconut, soybean, and corn oils were 3 and 4 cents per pound lower in December than in the same month of 1936. But average annual prices of most fats and oils for the calendar year 1937 were above average for the calendar year 1936, the exceptions being tung oil, corn oil, and refined peanut oil, all of which averaged slightly lower in price than during the calendar year 1936.

Cottonseed oil

The record production of cottonseed from the cotton crop of 1937 is being crushed in record time. Production of crude cottonseed oil from August 1 to November 30, 1937, is reported at 845 million pounds, while 746 million pounds is the largest production ever previously reported in the corresponding months of any year. These figures compare with a production of 653 million pounds and 591 million pounds in the corresponding periods of 1936 and 1935, respectively. Prices of crude oil, f.o.b. mills, in December 1937 were a shade lower than in November and averaged 5.9 cents compared with 10 cents in December 1936 and 9.4 cents in December 1935.

Flaxseed

The December 17 Crop Report places production of flaxseed from the 1937 United States crop at 6,974 thousand bushels, compared with 5,273 thousand in 1936 and 14,520 thousand bushels in 1935. Imports of flaxseed are running considerably higher than last year. The January to November 1937 total import was 26.4 million bushels compared with 13.9 million bushels in the first 11 months of 1936.

The first official estimate of the Argentine flaxseed crop now being harvested is placed at 62,398 thousand bushels. This low estimate of the probable outturn indicates a heavy damage from the November frosts.

The harvesting period of the Indian flaxseed crop runs from January to April and no estimates of probable production this spring are yet available. The first estimate of acreage is 7 percent above the first estimate of acreage a year ago and 17 percent higher than the first estimate of acreage for harvest the spring of 1936. Average production in India amounted to about 17 million bushels annually from 1933 to 1936.

Linseed oil prices averaged 10 cents per pound in December 1937 compared with 10.2 cents in November and an average of 9.5 cents for the calendar year 1936.

Soybeans

Soybean production in the United States has expanded greatly during the past 10 years. The 1937 crop was estimated in the December Crop Report at approximately 41 million bushels. This compares with 30 million bushels in 1936 and is next to the largest crop on record, being exceeded only by the 1935 crop of 44 million bushels.

Soybean oil prices have declined sharply in the past 6 months, influenced by increased supplies of cottonseed and soybeans as well as by the decline in general business activity.

The estimate of the Manchurian soybean crop released December 28 stands at 153 million bushels compared with 152 million bushels in 1936.

Peanuts

The December 17 Crop Report estimates peanut production (in-the-shell basis) at 1,292 million pounds compared with 1,337 million pounds in 1936.

Legislation

Imports of hemp, perilla, kapok, rape, and sesame seeds were practically stopped by the import tax of 2 cents per pound placed on these seeds by the Revenue Act of 1936, effective August 21, 1936.

Proposals for reduction of the tax rate, sponsored by several interested groups, have been presented to Congress. A subcommittee of the Ways and Means Committee has recommended the following rates: Hempseed 1.12 cents per pound; perilla 1.31 cents; rapeseed 1.51 cents, and sesame seed 1.05 cents per pound.

In December 1937 the State of Georgia memorialized the Congress of the United States "to repeal the Federal statutes which now levy special taxes and licenses and other restrictions against the sale and use of food products made from cottonseed oil and peanut oil. . ."

Table 2.-Price per pound of specified fats and oils, November, December, and annual, 1936-37

Fat or oil	1936			1937		
	Nov.	Dec.	Annual	Nov.	Dec.	Annual
	Cents	Cents	Cents	Cents	Cents	Cents
Domestic prices-						
Butter, 92°, N. Y.	33.6	34.2	33.0	38.1	38.9	34.4
Oleomargarine, domestic veg., Chicago	16.0	16.4	1/15.1	15.1	15.5	15.8
Lard, prime steam, Chicago	11.8	13.1	11.3	9.5	8.3	11.3
Lard, refined, Chicago	12.7	13.6	12.2	11.4	9.8	12.7
Lard compounds, Chicago	12.6	13.2	12.2	10.4	10.4	12.4
Coconut oil, edible, N. Y.	9.1	10.4	7.4	6.2	6.2	8.5
Cottonseed oil, crude, fob S.E. mills	8.7	10.0	8.6	6.0	5.9	8.0
Cottonseed oil, p.s.y., N. Y.	10.0	11.0	9.8	7.1		
Soybean oil, refined, N. Y.	10.2	11.3	9.8	8.8	8.4	10.9
Peanut oil, domestic, refined, N. Y.	12.5n	12.8n	12.5	10.3n	10.0n	12.1n
Rape oil, refined, N. Y.	10.0	10.5	8.3	12.3	12.1	12.3
Oleo oil, No. 1, N. Y.	11.1	13.1	11.2	12.8	12.1	13.1
Oleostearine, barrels, N. Y.	9.3	10.7	9.0	9.1	8.1	9.7
Corn oil, refined, N. Y.	12.5	12.7	12.0	9.8	9.4	11.5
Olive oil, edible, N. Y.	24.0n	26.0n	24.1	31.9n	31.3n	31.9n
Sunflower oil, refined, N. Y.	11.1	12.1	10.5	---	---	---
Teaseed oil, crude, N. Y.	11.8	13.9	10.6	9.3	9.1	10.8
Coconut oil, crude, Pacific Coast	6.4	8.1	5.0	4.0	3.7	6.0
Tallow, inedible, Chicago	7.2	7.8	5.8	5.4	5.1	7.5
Grease, house, N. Y.	7.2	7.8	5.5	5.1	4.5	7.4
Palm oil, crude, N. Y.	5.2	6.1	4.8	4.2	4.0n	5.6
Olive oil foots, barrels, N. Y.	9.3	10.0	8.7	10.1	9.8	11.1
Palm-kernel oil, denatured, N. Y.	5.6	7.6n	5.1	4.7n	4.5n	6.0
Babassu oil, tanks, N. Y. 2/	9.4	10.4	8.0	7.4	6.6	8.9
Sardine oil, tanks, Pacific Coast	4.9	5.5	4.5	4.8	4.9	6.0
Linseed oil, raw, Minneapolis	9.2	9.5	9.5	10.2	10.0	10.3
Tung oil, drums, Atlantic Coast	13.0	14.3	16.1	15.6n	14.8	15.7
Perilla oil, drums, N. Y.	9.7	10.9	8.8	12.8	11.5	12.1
Soybean oil, crude, fob mills	8.0	9.1	7.5	5.6	5.2	8.1
Menhaden oil, crude, fob Balto.	4.4n	4.7n	4.3	4.6n	4.8n	5.2n
Hempseed oil, crude, N. Y.	9.6	9.8	8.9	---	---	---
Foreign prices- 3/						
Cotton oil, crude, naked, Hull	5.9	6.8	5.9	4.4	4/4.1	5/5.8
Copra, Resecada, Philippines	3.3	4.2	2.4	4/1.9		6/3.1
Palm-kernel oil, crude, Hull	6.0	7.6	5.4	4.9	4/4.7	5/6.0
Whale oil, crude, No. 1, Rotterdam	4.2	4.7	4.4	4.1	4/3.7	5/4.7
Tallow, beef, fair-fine, London	5.7	6.2	6.0	5.1	4/4.9	5/5.8
Linseed oil, naked, Hull	5.5	6.0	5.8	6.3	4/6.1	5/6.4

1/ Average April-December. 2/ Beginning February 1937, prices are futures.
3/ Converted to U.S. cents per pound at current monthly rates of exchange.
4/ Preliminary. Average for 2 weeks. 5/ Average for 11-1/2 months.
6/ Average for 11 months.

Oleomargarine

The enormous available supplies of cottonseed oil together with the many State taxes on oleomargarine made from foreign ingredients, indicate that the displacement of coconut oil by cottonseed oil in oleomargarine will continue. In November 1936 about equal amounts of each of the two oils were used in the manufacture of oleomargarine, while in November 1937 the amount of cottonseed oil used was almost four times as large as the amount of coconut oil used.

Table 3.- Oleomargarine: Production and materials used in manufacture, United States, October and November, 1936 and 1937

Item	1936 1/		1937 1/	
	Oct.	Nov.	Oct.	Nov.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Oleo oil	1,741	1,985	773	650
Oleostearine	294	260	300	309
Lard, neutral	202	184	120	160
Oleo stock	174	175	100	59
Total animal	2,411	2,604	1,293	1,178
Cottonseed oil	10,042	10,373	20,154	20,339
Soybean oil	1,559	3,551	2,990	2,186
Peanut oil	390	333	255	240
Corn oil	6	10	75	109
Total domestic vegetable	11,997	14,267	23,474	22,874
Coconut oil	13,619	10,271	6,964	5,611
Palm-kernel oil	625	284	231	383
Babassu oil	572	516	992	501
Palm oil	29	18	-	-
Ouricuri oil	201	165	-	-
Sesame oil	6	4	-	-
Total foreign vegetable	15,052	11,258	8,187	6,495
Total fats and oils	29,460	28,129	32,954	30,547
Milk	6,732	6,351	7,497	7,037
Salt and other miscellaneous	1,935	1,774	2,098	1,878
Production of oleomargarine	35,586	34,209	40,645	37,475

1/ Preliminary.

Compiled and computed from reports of the Commissioner of Internal Revenue.

COMPOUNDS AND VEGETABLE SHORTENINGS [1]

Compounds and vegetable shortenings constitute the major outlet for cottonseed oil. In this use, however, cottonseed oil meets competition from other oils including soybean and peanut oils, and furthermore the compounds and vegetable shortenings must compete with lard. In the face of a prospect of some increase in the supply of lard in 1938, and with the second largest soybean crop on record, there is a real problem in disposing of a record production of cottonseed and the oil from that seed.

The abundance of cottonseed oil and relatively low prices may result in that oil largely displacing foreign oils that have been used in recent years in the manufacture of compounds. In the years 1932-34 cottonseed oil constituted 87 percent of the fats and oils used in the manufacture of compounds and vegetable shortenings, but the use of foreign oils (mostly palm and coconut oils) increased in 1935 and 1936. In the latter year cottonseed oil constituted only 57 percent. Reports are not yet available but preliminary estimates indicate that production of compounds and vegetable shortenings in 1937 probably about equaled production in 1936 and that the percentage of cottonseed oil used was considerably higher than in 1936.

Preliminary estimates of disappearance of refined cottonseed oil in all uses during the calendar year 1937 placed the figure at 1,600 million pounds, compared with 1,246 in 1936 and 1,335 million pounds in 1935. It is estimated that about 815 million pounds of refined oil were consumed from August 1 to December 31, 1937. Subtracting this amount from estimated possible supplies of 2,300 million pounds for the 1937-38 season leaves potential supplies of over 1,450 million pounds at the beginning of the calendar year 1938.

The production and consumption of compounds and vegetable shortenings in 1938 may equal that of 1937 in spite of some increase in lard production. Lard stocks are low and part of the increase in lard production may be used to build up stocks; and exports are likely to be increased to some extent on account of low prices. The per capita consumption of lard and compounds does not vary greatly from year to year, and it may be probable that the production of compounds and vegetable shortenings in 1938 will amount to about 1,500 to 1,550 million pounds. Using cottonseed oil to the extent of 85 percent would result in total utilization of 1,250 to 1,300 million pounds of refined cottonseed oil in vegetable shortenings. Probably as much as 400 million pounds of cottonseed oil may be used in oleomargarine and other foods in 1938. Thus, if cottonseed oil should replace imported oils in compounds in 1938 as it has been doing in oleomargarine the past year (see table 3) a possible 1,650 to 1,700 million pounds of refined cottonseed oil might be used for food in the calendar year 1938. End of season stocks of cottonseed oil in terms of refined oil averaged 420 million pounds in 1935-37 and 720 million pounds in 1931-34.

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[1] The vegetable shortening industry from its inception through 1933 has been ably dealt with in The American Vegetable Shortening Industry, its Origin and Development. 359 pp. Stanford University, Calif. (Food Research Institute, June 1934.) by Weber, G. M., and Alsberg, C. L.,

See FOS-10, December 14, 1937, for data on cottonseed oil.

Competition between lard and other shortening

During the war period, 1914-19, when lard production averaged 1,658 million pounds, consumption of compounds and vegetable shortenings was almost as much as consumption of lard, constituting 48 percent of total consumption of lard and vegetable shortenings combined, and was almost twice the volume of the average exports of lard during this period.

In the 14 years, 1920 to 1933, lard production was very high, averaging 2,318 million pounds annually. Throughout this period lard consumption was materially above consumption of other shortenings (see table 1) but with the exception of the 4 years 1921-24 exports of lard were considerably less than the domestic consumption of compounds and vegetable shortenings. In 1935 and 1936 total domestic lard production supplied less than half the total consumption of lard and other shortenings.

In 1934, domestic per capita disappearance of lard was 1 pound below 1933 and compound disappearance was 1.9 pounds larger, coincidental with an average price increase of 2.4 cents per pound for lard, 1 cent for lard compound, and 1.1 cents for refined cottonseed oil. In 1935, the shift was greater, because of sharper reductions in lard production than in 1934. Lard disappearance decreased from 12.8 to 9.4 pounds per capita and compound disappearance increased from 9.5 to 12.1 pounds, while lard prices rose from 8.84 to 15.07 cents per pound, lard compound from 8.57 to 13.12 cents, and refined cottonseed oil from 7.7 to 12.1 cents per pound.

Per capita consumption of shortening agents in the United States has been maintained at slightly higher levels during the recent period of lard shortage than in 1932-33 as a result of decreased lard exports and increased use of compounds. Lard exports dropped from 584 million pounds in 1933 to 435 million pounds in 1934, 97 million pounds in 1935, and then increased to 112 million pounds in 1936 and more in 1937. Total domestic disappearance of lard and compounds was 2,686 million pounds in 1933, 2,821 million in 1934, 2,742 million in 1935, and 2,985 million pounds in 1936. (See tables 4 and 7) Of this total, lard was 64.7 percent in 1933, then dropped to 57.4 percent in 1934, to 43.8 percent in 1935, and 47.9 percent in 1936. Increased use of compounds, thus increased per capita consumption of lard and compounds combined to an average of 22.2 pounds in 1934-36, compared with an average of 21.6 pounds for 1932-33.

Increased factory demand for raw materials provided an outlet for huge stocks of cottonseed oil, which had accumulated between 1931 and 1933. Crops of cottonseed were small in 1934 and 1935, and in spite of the increased percentage crushed, production of cottonseed oil was less in the 1934-35 and 1935-36 seasons than in any of the preceding 10 years. This situation created increased demand for other domestic and foreign animal and vegetable fats and oils, and resulted in a marked change in the make-up of factory consumption of fats and oils by the shortening industry. (See tables 5 and 6.)

Lard appears to be in a weaker position with respect to alternative uses than vegetable shortenings. There is a possibility of diverting into other channels some of the raw materials normally consumed in the manufacture of vegetable shortenings. Other conditions being the same, the various fats and oils tend to move into the highest price outlet for which they are technically suitable. If the price inducement is great enough some cottonseed may be stored or used for feed or fertilizer. Imports of foreign oils and oilseeds may be curtailed. Lard, on the other hand, is a byproduct of hog slaughter, although there may be considerable fluctuation in lard produced from the same number of hogs slaughtered, depending on the weight at which the hogs are slaughtered and the relative amount of fat left on the carcass or sold as grease.

Another factor which weakens the position of lard is that its production time is determined by the time of hog slaughter, and it cannot be stored for indefinite periods. Generally speaking, it is necessary to move it into consuming channels within about a year after the producing season; vegetable shortenings, on the other hand, are manufactured from day to day or week to week out of less perishable raw materials available the year around.

Foreign market for American lard

Exports have provided an outlet for a large share of domestic lard production since before 1880, and imports have always been negligible. In 1900, total net exports and shipments to non-contiguous territories were 615 million pounds which was 37.7 percent of total production. From 1900 to 1935, except in 1910 and 1917, annual exports and shipments remained above 400 million pounds, and exports were steadily in excess of 700 million pounds from 1921 to 1929. (See table 7.) The 5-year average 1930-34 was 561 million pounds. In 1935, however, only 97 million pounds of lard were exported and 18 million pounds shipped to non-contiguous territories, or total exports and shipments of 115 million pounds. In 1936 exports were 112 million pounds, shipments 25 million pounds, a total of 137 million pounds. Exports in 1937 were larger than in 1936, but still far below figures of years prior to 1935.

Leading lard importing countries

The United Kingdom and Germany have been the leading importers of lard from the United States, and have accounted for an average of 62 percent of total United States exports in the 10-year period 1927-36. Since the World War, exports to the United Kingdom remained fairly constant, averaging 244 million pounds from 1921-34, followed by a sharp drop in 1935, and an average of only 64 million pounds 1935-37. Exports to Germany have shown a marked downward trend. Exports of lard to Germany in 1937 were less than 2 million pounds compared with 7 million in 1936 and 2 million pounds in 1935. In the 4-year period 1930-33 exports to Germany were only 134 million pounds compared with an average of about 200 million pounds in the 5-year period 1925-29 and an average of 300 million pounds 1921-24. A similar tendency exists with respect to exports to other European countries which are trying to reduce imports.

Europe is uniformly following the policy of encouraging its animal husbandry and is promoting the use of vegetable and marine animal oils. Imports of lard into Germany, Czechoslovakia, Austria, Belgium, Italy, Switzerland, and Norway, principal importing countries of continental Europe, have shown marked decreases below averages of 1925-29. France, Poland, Sweden, and Yugoslavia have become net exporting countries in the last few years. (Agricultural Statistics, 1937, p. 267, table 365.)

The number of hogs in Germany has greatly increased since 1924, and the number in the United Kingdom, France, Poland, and most of the other European countries has shown an upward trend since 1930. (Ibid, p. 259.)

Foreign market for United States compounds and vegetable shortenings

Exports of compounds from the United States were first separately reported in about 1893. A rather modest foreign market, principally in Europe, was established by 1907, when 80 million pounds of compounds and vegetable shortenings are estimated to have been exported. With the single exception of 1919, when 121 million pounds of compounds were exported, this represents the high point of export trade. Exports then gradually diminished to an average of 15.1 million pounds in 1925-29 and 4.6 million pounds in 1930-34. In the years 1935-37 the United States has been a net importer of compounds and vegetable shortenings, imports averaging 5.7 million pounds in 1935-36 and less than half a million pounds in 1937, mostly from the Philippines. (See table 4.) The European oleomargarine industry has so strengthened the position of its product in recent years that the American compound industry may not again find ready entrance into the European market.

Marketing vegetable shortenings and lard

In general, compounds or vegetable shortenings may be classified in two groups: (1) The highly processed, widely advertised, and specially packaged group which sells under trade names. (2) Products which are not so highly processed nor so widely advertised, and which sell in cartons, tierces, or tubs, largely to restaurants and bakeries. Large establishments find it desirable to maintain uniform quality, and hence must ensure themselves of uniform character and performance of their raw materials.

In recent years, however, national packers are endeavoring to meet this competition by putting out brands of improved lard which meet the requirements of uniformity, stability, and convenience of package. It is estimated by some members of the trade that lard in 1-pound cartons now constitutes about 60 percent of the total retail distribution of that product. This is probably too high a percentage to apply to all distribution. The 2-pound, 4-pound, and 8-pound carton distribution probably represents around 15 percent of the total. The remainder is in tins and tubs. The principal reasons for the growing popularity of the 1-pound cartons are the somewhat better packaging then formerly and the smaller sized package which meets the demand of a large number of consumers, who buy on a hand-to-mouth basis.

Table 4 .- Compounds and vegetable shortenings: Production, trade, stocks as of December 31, and apparent disappearance, 1920-36

Calendar year	Factory production	Imports for consumption	Exports	Net exports	Stocks Dec. 31	Apparent disappearance Total	Apparent disappearance Per capita
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	Lb.
1920	747,255	1/ 14	32,051	32,037		715,218	6.7
1921	811,095	1/ 5	48,207	48,202		762,893	7.1
1922	784,180	35	41,765	41,730	15,515	742,450	6.8
1923	750,522	2	17,067	17,065	10,689	738,283	6.6
1924	830,435	83	14,371	14,288	19,517	807,319	7.1
1925	1,152,620	25	22,313	22,288	22,857	1,126,992	9.8
1926	1,140,708	319	13,167	17,848	22,926	1,122,791	9.6
1927	1,178,995	250	14,420	14,170	26,770	1,160,981	9.8
1928	1,143,349	181	10,394	10,213	29,929	1,129,977	9.4
1929	1,120,102	257	9,975	9,718	31,669	1,208,644	9.9
1930	1,211,268	92	8,791	8,699	26,672	1,207,566	9.8
1931	1,171,559	101	5,994	5,893	24,751	1,167,587	9.4
1932	945,441	221	3,498	3,277	26,265	940,650	7.5
1933	952,580	189	2,602	2,413	27,301	949,131	7.6
1934	1,204,331	281	2,181	1,900	27,690	1,202,042	9.5
1935 2/	1,546,795	7,949	1,219	3/ 6,730	39,890	1,541,325	12.1
1936 2/	1,586,741	6,235	1,622	3/ 4,613	44,932	1,586,312	12.4
1937 2/							
Jan.Sept	1,126,804	1,427	1,032	3/ 395	4/37,324	1,134,807	

1/ 1920-21 includes small percentage of lard.
2/ Preliminary.
3/ Net imports, principally from Philippine Islands.
4/ Stocks September 30, 1937.

Compiled as follows:

Production -

1920-21, U.S. Tariff Commission Report to Congress on Certain Vegetable Oils . . . (Report No. 41, 2nd Series 1932), p. 159-160.

1922-36, Bureau of the Census, Animal and Vegetable Fats and Oils.

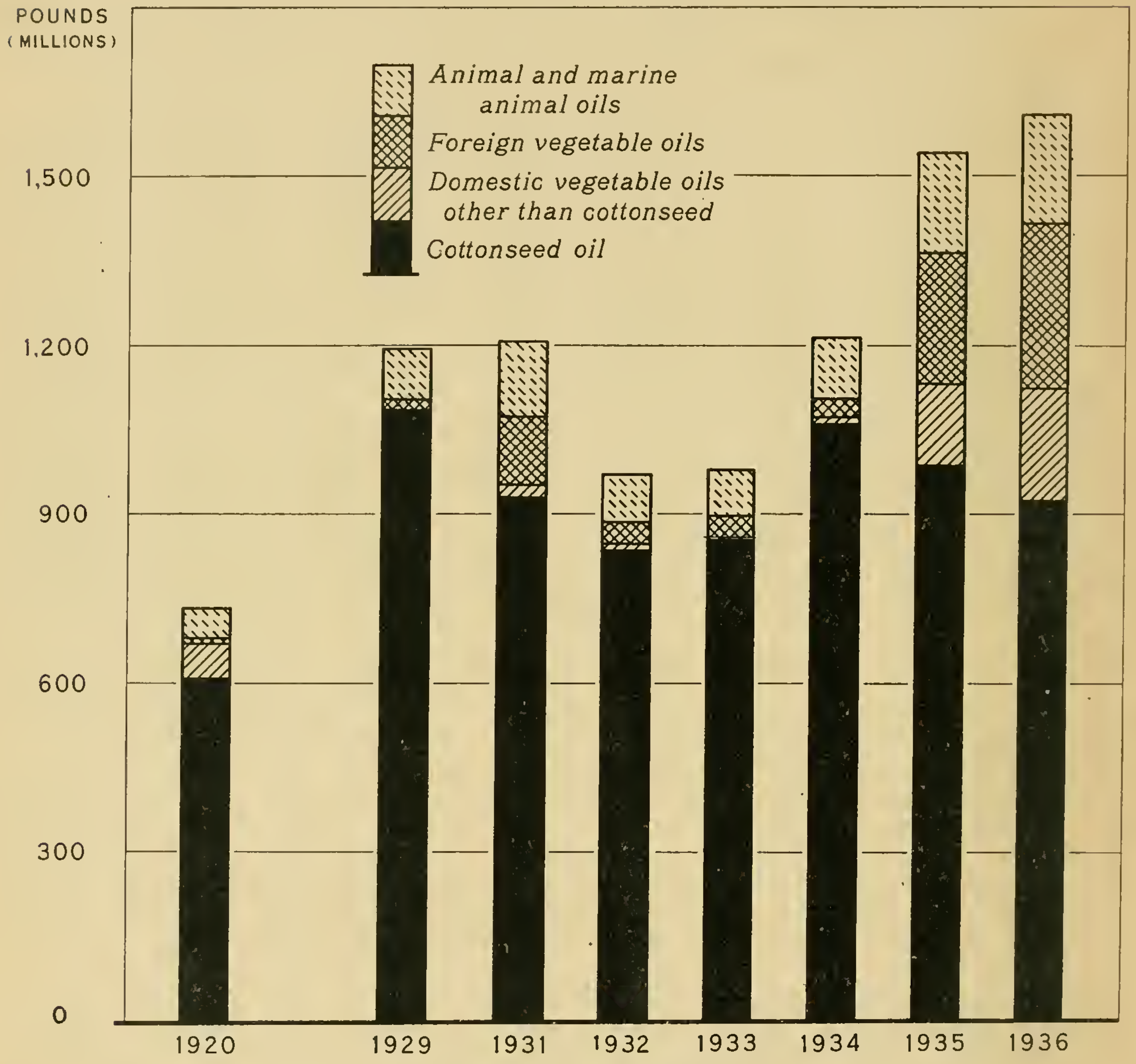
Trade figures from Foreign Commerce and Navigation of the United States.

Exports reported as follows: 1920-21, under animal products as "lard compounds and other substitutes for lard"; 1922-32, total of two items separately reported as "lard compounds containing animal fats" and "vegetable oil lard compounds"; 1933-36, under vegetable products as "cooking fats other than lard".

Imports are reported as "animal oils".

Stocks, Bureau of the Census, Animal and Vegetable Fats and Oils.

Per capita disappearance based on July 1 population.



FACTORY CONSUMPTION OF FATS AND OILS IN VEGETABLE SHORTENINGS AND COMPOUNDS, 1920, 1929, AND 1931-36

DATA FROM BUREAU OF THE CENSUS

U. S. DEPARTMENT OF AGRICULTURE NEG. 32992 BUREAU OF AGRICULTURAL ECONOMICS

FIGURE I

Table 5 .- Production of compounds and vegetable shortenings and factory consumption of fats and oils therein, United States, 1931-36

Item	1931	1932	1933	1934	1935	1936
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Cottonseed oil	928,489	834,367	852,843	1,058,733	985,798	918,866
Soybean oil	10,869	4,889	489	2,735	52,452	113,897
Peanut oil	5,960	3,502	3,330	8,837	90,900	88,470
Corn oil	6,616	3,067	1,128	1,895	2,815	430
Linseed oil	-	-	-	-	57	-
Total domestic vegetable	951,934	845,825	857,790	1,072,200	1,132,022	1,121,663
Palm oil	34,536	22,126	21,116	16,717	114,362	168,808
Coconut oil	34,152	8,332	7,117	9,045	44,034	38,427
Sesame oil	33,817	7,797	7,371	4,720	34,967	33,120
Rape oil	-	-	-	122	15,575	30,572
Babassu oil	-	-	-	-	-	5,368
Palm-kernel oil	158	-	-	-	825	627
Sunflower oil	-	-	2,469	901	10,896	208
Perilla oil	-	-	-	-	55	-
Other 1/	18,549	957	-	1,626	12,839	15,640
Total foreign vegetable	121,192	39,212	38,073	33,131	233,553	292,770
Tallow, edible	69,548	45,708	46,437	73,416	120,384	116,908
Oleostearine	27,220	17,357	17,105	21,517	27,026	36,358
Lard	8,860	5,636	3,171	2,635	2,252	4,503
Oleo oil	10,004	1,134	294	764	126	1,839
Total animal	115,632	69,835	67,007	98,332	149,788	159,608
Fish oils	16,676	11,520	9,272	10,775	27,671	36,649
Marine mammal oils	2,708	2,185	-	304	427	-
Total fats and oils	1,208,142	968,577	972,142	1,214,742	1,543,461	1,610,690
Production of vegetable shortenings and compounds	1,171,559	945,441	952,580	1,204,331	1,546,795	1,586,741

1/ Unnamed vegetable oils reported as "other".

Compiled from Bureau of the Census, Factory Consumption of Animal and Vegetable Fats and Oils, by Classes of Products; and Animal and Vegetable Fats and Oils.

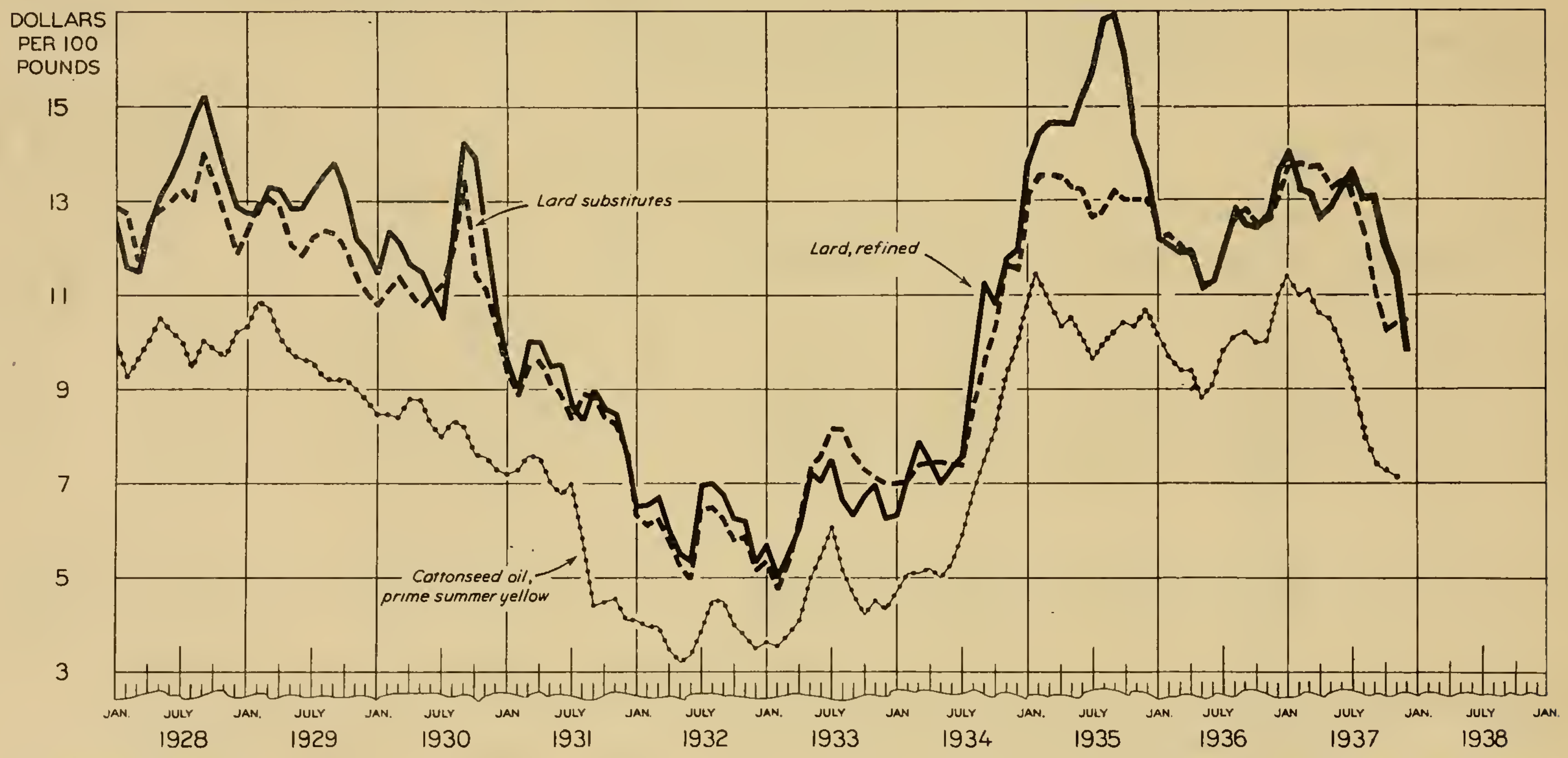
Table 6 .-Factory consumption of fats and oils, expressed as percentage of total oils, in compounds and vegetable shortenings, United States, 1931-36

Fat or oil	1931	1932	1933	1934	1935	1936
	Percent	Percent	Percent	Percent	Percent	Percent
Cottonseed oil	76.9	86.1	87.7	87.2	63.9	57.0
Soybean oil	.9	.5	.1	.2	3.4	7.1
Peanut oil	.5	.4	.3	.7	5.9	5.5
Corn oil	.5	.3	.1	.2	.2	1/
Linseed oil	---	---	---	---	1/	---
Total domestic vegetable	78.8	87.3	88.2	88.3	73.4	69.6
Palm oil	2.9	2.3	2.2	1.4	7.4	10.5
Coconut oil	2.8	.9	.7	.7	2.9	2.4
Sesame oil	2.8	.8	.8	.4	2.3	2.0
Rape oil	---	---	---	1/	1.0	1.9
Babassu oil	---	---	---	---	---	.3
Palm-kernel oil	1/	---	---	---	.1	1/
Sunflower oil	---	---	.3	.1	.7	1/
Perilla oil	---	---	---	---	1/	---
Other 2/	1.5	.1	---	.1	.8	1.0
Total foreign vegetable	10.0	4.1	4.0	2.7	15.2	18.1
Tallow, edible	5.8	4.7	4.8	6.0	7.8	7.3
Oleostearine	2.3	1.8	1.8	1.8	1.7	2.3
Lard	.7	.6	.3	.2	.1	.3
Oleo oil	.8	.1	1/	.1	1/	.1
Marine animal oils	1.6	1.4	.9	.9	1.8	2.3
Total animal and marine animal oils	11.2	8.6	7.8	9.0	11.4	12.3
Total fats and oils	100.0	100.0	100.0	100.0	100.0	100.0

1/ Less than one-tenth of one percent.
2/ Unnamed vegetable oils reported as "other".

Computed from Bureau of the Census, Factory Consumption of Animal and Vegetable Fats and Oils, by Classes of Products.

AVERAGE WHOLESALE PRICES OF REFINED LARD AND LARD SUBSTITUTES
AT CHICAGO AND COTTONSEED OIL AT NEW YORK, 1928 TO DATE



U. S. DEPARTMENT OF AGRICULTURE

NEG. 28103

BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 2

Table 7 .- Lard, including neutral: Production, trade, stocks December 31, and apparent disappearance, average 1914-19 to 1925-29, annual 1930-36

Year	Production			Imports 1/	Exports	Net exports	Shipments to non-contiguous territories	Total net exports and shipments	Stocks Dec.31	Apparent disappearance in continental U.S.
	Federally inspected	Other	Total							
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Average										
1914-19	968,116	716,926	1,685,042	0	520,257	520,257	4,428	524,685	73,142	1,160,472
1920-24	1,611,008	718,132	2,329,140	10	869,359	869,349	11,113	880,462	53,211	1,148,991
1925-29	1,606,953	677,949	2,284,902	26	751,560	751,534	15,933	767,467	32,928	1,513,225
1930	1,521,160	670,634	2,191,794	2	656,018	656,016	18,222	674,238	51,434	1,548,220
1931	1,554,018	717,244	2,271,262	3	578,296	573,293	22,547	600,840	51,224	1,670,632
1932	1,573,460	768,692	2,342,152	8	552,154	552,146	23,735	575,881	41,088	1,776,407
1933	1,679,272	761,263	2,440,535	1	584,238	584,237	27,523	611,760	132,510	1,737,353
1934	1,340,795	721,960	2,062,755	2/	434,892	434,892	22,840	457,732	118,107	1,619,426
1935	662,060	588,230	1,250,290	37	97,359	97,322	17,727	115,049	52,718	1,200,630
1936 3/	992,169	668,783	1,660,952	3	112,168	112,165	24,865	137,030	145,309	1,430,831
1937 3/										
Jan-Nov.				241	114,682	114,441	23,410	137,851	4/33,974	

1/ 1914-21 imports are included with lard compounds.
2/ Less than 500 pounds.
3/ Preliminary.
4/ Stocks November 30.

These production data are recent revisions of the Bureau. The figure on "other than Federally inspected" is made up of wholesale non-inspected slaughter, and retail farm and local slaughter.

Table 8.-Lard, including neutral: Exports from the United States, 1921-37

Year	Total 1/	To- United Kingdom	Germany	Other countries
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1921	893	237	281	375
1922	787	241	226	320
1923	1,060	239	379	442
1924	971	241	313	417
1925	708	218	198	292
1926	717	228	204	285
1927	702	225	191	286
1928	783	241	185	357
1929	848	245	219	384
1930	656	241	114	301
1931	578	252	134	192
1932	552	237	159	156
1933	584	296	127	161
1934	435	282	27	126
1935	97	65	2	30
1936	112	64	7	41
1937- Jan.- Nov.	115	62	1	52

1/ Total exports do not include shipments to territories.

Compiled from Foreign Commerce and Navigation of the United States.

Table 9 .- Compounds and vegetable shortenings: Average wholesale price per 100 pounds, Chicago, by months, 1929-37

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
1929	12.40	12.94	13.06	12.88	12.05	11.85	12.22	12.58	12.31	11.99	11.39	11.06	12.21
1930	10.80	11.12	11.38	11.05	10.75	11.00	11.25	12.00	13.38	11.44	11.12	10.25	11.30
1931	9.38	8.90	9.50	9.60	9.12	8.88	8.35	8.91	8.80	8.38	8.25	7.70	8.81
1932	6.31	6.12	6.25	5.75	5.25	4.93	6.44	6.50	6.25	5.75	5.87	5.15	5.88
1933	5.34	4.74	5.32	6.16	7.35	7.60	8.14	8.15	7.62	7.29	7.12	7.00	6.32
1934	7.00	7.06	7.38	7.44	7.45	7.38	7.58	8.55	9.59	10.32	11.66	11.65	8.57
1935	13.07	13.50	13.50	13.41	13.25	13.19	12.65	12.75	13.16	13.00	13.00	13.00	13.12
1936	12.45	12.25	11.94	11.30	11.19	11.25	11.95	12.69	12.80	12.50	12.62	13.15	12.22
1937	13.69	13.75	13.68	13.69	13.25	13.40	13.25	12.25	11.05	10.25	10.38	10.45	12.42

Table 10.- Cottonseed oil, white deodorized (edible): Average price per pound, Chicago, by months, 1929-37

Year beginning August	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Average
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1929	10.6	10.6	10.4	10.4	10.5	10.5	10.5	10.0	9.9	9.9	9.6	9.6	10.2
1930	9.6	9.5	9.4	9.4	9.4	9.4	9.4	9.4	9.6	9.1	8.8	9.1	9.3
1931	8.9	7.4	6.8	7.1	6.8	6.5	6.5	6.5	6.1	5.9	6.0	6.3	6.7
1932	6.6	6.9	6.8	6.4	6.2	6.5	6.6	7.1	6.7	7.1	7.2	7.7	6.8
1933	7.1	6.1	5.6	5.6	5.4	5.5	6.6	6.6	6.8	6.6	6.8	6.9	6.3
1934	7.1	7.8	9.6	10.2	11.4	13.4	13.8	1[illegible].4	13.0	12.2	11.8	11.1	11.2
1935	11.3	11.1	11.5	11.3	11.3	10.8	10.4	10.4	10.4	10.1	10.2	10.4	10.8
1936	10.8	10.8	10.6	10.8	11.8	12.4	12.3	12.1	11.8	11.2	10.9	10.5	11.3
1937	10.2	9.8	9.6	9.6	9.4								

Compiled as follows: (For earlier years see tables 144 and 116 in U.S.D.A. Stat. Bull. No. 59)

Compounds - Bureau of Agricultural Economics. Quoted in tubs, as lard substitutes and represents refined deodorized cottonseed oil combined with beef stearines as follows: 15-20 percent oleostearine; 80-85 percent refined cottonseed oil.

Cottonseed oil - National Provisioner. Average of weekly range during the month. Quoted in barrels. Aug.-Nov. 1929, c.a.f. Chicago; beginning Dec. 1929, f.o.b. Chicago.

Table 11.- Lard, prime steam: Average wholesale price per 100 pounds, Chicago, by months, 1927-37

Year beginning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
1927	12.26	11.37	11.46	11.88	11.13	11.48	11.72	11.79	11.80	12.14	12.26	12.50	11.86
1928	11.80	11.46	11.00	11.77	11.85	12.18	11.74	11.59	11.76	12.12	11.90	11.61	11.73
1929	10.85	10.32	10.19	10.31	10.68	10.17	10.32	10.18	9.72	9.61	10.97	11.52	10.40
1930	11.41	10.67	9.54	8.54	8.08	8.83	8.59	7.76	7.93	7.87	7.17	7.22	8.64
1931	7.84	6.68	5.62	5.17	4.72	4.74	4.36	3.94	3.95	5.09	5.17	4.99	5.13
1932	4.32	4.70	4.19	4.22	3.84	4.37	4.79	6.31	6.22	6.86	5.77	5.67	5.10
1933	5.28	5.51	4.78	5.49	6.36	6.30	5.92	6.02	6.55	6.94	8.45	9.36	6.41
1934	9.41	10.29	11.70	12.84	13.34	13.12	12.83	13.17	13.56	14.29	16.25	15.85	13.05
1935	14.45	13.45	12.25	11.14	10.22	10.94	10.93	10.42	10.31	10.96	12.07	11.68	11.61
1936	11.54	11.76	13.13	13.59	12.55	12.48	11.65	11.92	11.88	12.16	11.26	10.97	12.06
1937	9.98	9.50	8.27										

Table 12.- Lard, refined: Average wholesale price per 100 pounds, Chicago, by months, 1927-37

1927	14.50	13.60	13.25	12.50	11.60	11.50	12.50	13.10	13.50	14.00	14.70	15.25	13.33
1928	14.40	13.62	12.88	12.75	12.75	13.31	13.25	12.85	12.35	13.22	13.56	13.81	13.27
1929	13.17	12.21	11.94	11.45	12.38	12.12	11.65	11.50	11.00	10.50	12.44	14.25	12.05
1930	13.94	12.31	10.70	9.62	8.94	10.00	10.00	9.50	9.53	8.65	8.32	9.00	10.04
1931	8.58	8.47	7.65	6.50	6.53	6.70	6.00	5.50	5.53	6.96	7.00	6.75	6.83
1932	6.25	6.19	5.28	5.69	5.00	5.50	6.09	7.23	7.04	7.53	6.65	6.51	6.23
1933	6.73	6.98	6.25	6.32	7.12	7.83	7.50	7.00	7.31	7.56	9.53	11.25	7.62
1934	10.88	11.75	11.97	13.82	14.44	14.66	14.66	14.65	15.19	15.65	16.81	16.97	14.29
1935	16.00	14.38	13.62	12.15	12.06	11.98	11.90	11.12	11.28	12.10	12.81	12.48	12.65
1936	12.41	12.66	13.65	14.00	13.30	13.15	12.62	12.88	13.25	13.62	13.00	13.05	13.13
1937	12.00	11.38	9.78										

Compiled as follows: (For earlier years see tables 146 and 144 in U.S.D.A. Stat. Bull. No. 59.)

Lard, prime steam, cash, from the National Provisioner. Average of weekly quotations during the month. Quotations for lard usually include price of container.

Lard, refined, from Bureau of Agricultural Economics. Average of weekly average of daily quotations during the month. Quoted in hardwood tubs.

Table 13.- Tallow, edible: Average wholesale price per pound, Chicago, by months, 1927-37

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1927	7.87	8.38	8.72	8.00	8.12	8.38	8.17	8.65	9.88	10.56	10.07	9.32	8.84
1928	9.50	9.20	9.28	9.65	9.52	9.00	8.81	8.94	9.69	9.62	9.63	9.75	9.39
1929	9.67	9.82	9.39	8.88	8.55	8.30	8.35	8.62	9.03	9.25	8.83	8.40	8.93
1930	8.08	7.75	7.28	7.35	6.62	6.28	6.37	6.38	6.38	6.33	6.12	6.20	6.76
1931	5.19	4.53	5.18	5.37	4.62	4.31	4.38	4.22	4.12	4.50	4.82	4.40	4.64
1932	4.06	3.72	3.42	3.25	2.98	2.77	3.38	4.05	4.06	3.70	3.57	3.05	3.50
1933	3.10	2.91	3.16	3.22	4.34	4.41	4.48	3.91	3.64	3.59	3.76	3.62	3.68
1934	3.46	3.52	3.65	3.74	3.98	4.00	4.41	5.50	6.82	6.70	6.76	7.16	4.98
1935	7.85	8.62	8.68	7.62	7.70	7.97	7.54	9.39	9.31	9.47	9.59	9.00	8.56
1936	7.94	7.25	6.61	6.95	6.02	6.08	7.76	8.88	9.02	8.58	8.73	9.88	7.81
1937	10.95	10.03	9.90	9.34	8.80	8.88	8.88	8.46	7.79	7.19	6.69	6.21	8.59

Table 14.- Oleostearine: Average price per pound, in barrels, New York, by months, 1927-37

1927	9.4	10.0	10.6	9.3	9.8	9.7	10.1	10.5	12.2	13.0	11.8	10.1	10.5
1928	10.2	9.6	10.4	11.3	11.1	9.8	10.1	10.6	12.0	11.7	10.6	10.2	10.6
1929	10.9	11.9	11.2	10.8	9.9	9.8	9.9	10.9	10.9	10.7	9.9	9.6	10.5
1930	9.3	9.4	9.1	9.0	8.7	8.4	8.2	8.6	9.4	8.8	8.6	8.8	8.9
1931	8.0	7.5	8.3	8.5	7.3	6.7	8.0	8.6	7.8	6.9	6.8	6.2	7.6
1932	5.2	4.8	4.3	4.6	4.3	3.9	5.1	6.4	6.8	6.1	5.4	4.4	5.2
1933	3.9	3.7	4.1	4.2	5.4	5.6	6.0	6.1	5.2	5.2	5.3	5.4	5.0
1934	5.1	5.3	5.8	5.8	5.4	5.4	6.3	6.9	9.7	10.0	8.6	9.0	6.9
1935	9.6	11.1	12.3	10.9	9.8	9.5	9.2	10.3	11.8	11.9	11.8	10.6	10.8
1936	9.5	8.6	7.9	8.1	7.6	7.3	9.0	10.2	10.2	9.8	9.3	10.7	9.0
1937	12.0	10.4	10.3	10.2	9.6	9.5	9.7	9.6	8.9	9.4	9.1	8.1	9.7

Compiled as follows: (For earlier years see tables 152 and 150 in U.S.D.A. Stat.Bull. No. 59.)
Tallow, from the National Provisioner. Average of weekly quotations during the month.
Oleostearine, from the Oil, Paint, and Drug Reporter. Average of quotations for Saturdays during the month

Table 15.- Butter: Average price per pound, New York, by months, 1927-37

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1927	49.2	51.5	50.2	50.3	43.5	42.5	41.7	41.9	46.5	48.4	49.8	51.9	47.3
1928	48.8	46.6	49.4	45.5	44.9	44.1	44.9	46.9	48.8	47.3	50.6	50.5	47.4
1929	47.9	49.9	48.4	45.4	43.5	43.5	42.4	43.4	46.2	45.6	42.7	41.1	45.0
1930	36.6	35.7	37.3	38.5	34.8	32.9	35.3	38.9	39.8	40.0	36.1	32.2	36.5
1931	28.5	28.4	28.9	26.1	23.7	23.3	25.0	28.1	32.5	33.8	30.9	30.5	28.3
1932	23.6	22.5	22.6	20.1	18.8	17.0	18.2	20.3	20.8	20.7	23.3	24.1	21.0
1933	19.8	18.6	18.2	20.7	22.5	22.8	24.5	21.3	23.6	24.0	23.6	20.1	21.6
1934	19.8	25.4	25.4	23.7	24.5	24.9	24.5	27.4	25.8	26.9	29.4	31.0	25.7
1935	34.2	36.2	31.7	34.5	27.3	24.3	23.9	25.0	26.2	28.1	32.3	34.0	29.8
1936	34.6	36.9	32.2	31.0	27.5	29.7	33.6	35.6	35.0	32.9	33.6	34.2	33.0
1937	34.2	34.3	35.8	32.9	32.3	30.9	31.6	32.8	35.0	36.0	38.1	38.9	34.4

Table 16.- Oleomargarine, domestic vegetable: Average price per pound, Chicago, by months, 1936-37

1936				16.5	14.0	13.0	14.2	14.9	15.3	15.8	16.0	16.4	1/ 15.1
1937	16.5	16.5	16.6	16.5	16.4	15.4	15.0	15.5	15.2	15.0	15.1	15.5	15.8

1/ Not reported prior to week ended April 18, 1936. Average is for months shown.

Compiled as follows:

Butter - Bureau of Agricultural Economics. Average of daily quotations during the month. Quotations for butter usually include the price of the container. The grade quoted in this series is 92 score.

Oleomargarine - National Provisioner. Average of weekly quotations during the month.

For a series of prices on nut oleomargarine, see Oleomargarine, Statistics of Production, Materials used in Manufacture, Consumption, Trade, and Prices, p. 36, mimeo. publication, Bureau of Agricultural Economics, August 1936, which series was discontinued with price for October 1937.

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